



# 1998 Toxics Release Inventory

## OHIO

### Reported Releases and Waste Management Activities (in pounds)

	Original Industries	New Industries	Total
On-site Releases	108,556,396	178,483,569	287,039,965
Air Emissions	63,602,506	95,718,441	159,320,947
Surface Water Discharges	5,778,926	389,243	6,168,169
Underground Injection Class I Wells	13,329,724	17,841,000	31,170,724
Underground Injection Class II-V Wells	0	0	0
On-site Land Releases to RCRA Subtitle C Landfills	1,378,051	50,522,000	51,900,051
Other On-site Land Releases	24,467,189	14,012,885	38,480,074
Off-site Releases (Transfers Off-site to Disposal) *	35,777,962	13,450,349	49,228,311
<b>Total On- and Off-site Releases</b>	<b>144,334,358</b>	<b>191,933,918</b>	<b>336,268,276</b>
Recycled On-site	268,220,342	25,901,182	294,121,524
Recycled Off-site	183,145,482	2,092,551	185,238,033
Energy Recovery On-site	115,563,551	0	115,563,551
Energy Recovery Off-site	35,621,104	43,058,799	78,679,903
Treated On-site	141,513,103	80,392,444	221,905,547
Treated Off-site **	34,776,713	27,564,344	62,341,057
Quantity Released On- and Off-site ***	148,744,315	191,943,004	340,687,319
<b>Total Production-related Waste Managed</b>	<b>927,584,610</b>	<b>370,952,324</b>	<b>1,298,536,934</b>
<b>Total Non-production-related Waste Managed</b>	<b>570,267</b>	<b>93,206</b>	<b>663,473</b>

### Transfers Off-site for Further Waste Management/Disposal

Recycling	182,020,154	2,084,829	184,104,983
Energy Recovery	35,502,911	65,761,370	101,264,281
Treatment	15,056,822	4,490,954	19,547,776
Publicly Owned Treatment Works (POTWs)	16,876,712	128,548	17,005,260
Metals and Metal Compounds *	321,551	1,138	322,689
Non-metal TRI Chemicals **	16,555,161	127,410	16,682,571
Other Off-site Transfers ****	8,071	0	8,071
Off-site Transfers to Disposal (not including metals to POTWs)	44,680,805	13,786,844	58,467,649
<b>Total Transfers Off-site for Further Waste Management/Disposal</b>	<b>294,145,475</b>	<b>86,252,545</b>	<b>380,398,020</b>

\* Transfers to POTWs of metals and metal compounds are included in off-site releases. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.

\*\* Transfers to POTWs of non-metals are included in treated off-site waste management activity.

\*\*\* Excludes non-production-related releases; e.g. releases due to catastrophic events or remedial actions.

\*\*\*\* Transfers reported without a valid waste management code.

### For More Information . . .

#### State Contact:

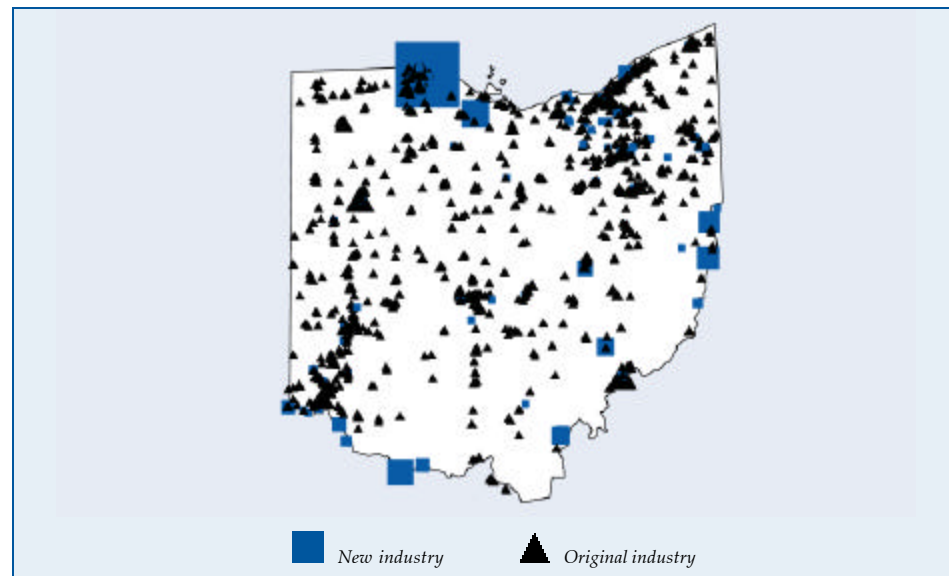
Cindy DeWulf  
(614) 644-3606  
Fax: (614) 644-3681

#### EPA Regional Contact:

Thelma Codina  
(312) 886-6219  
Fax: (312) 353-4788

#### To obtain TRI data use assistance, call TRI User Support Service (TRI-US):

(202) 260-1531  
Fax: (202) 401-2347



The largest marker in the state map represents the largest facility for on-site releases in the state of Ohio. All markers are proportionally-sized to represent the on-site releases at each facility within this state.

### State/TRI Data

Population	11,209,493
Square Miles	40,953
Total Facilities	1,682
Total Forms	6,390
Form As	1,091

	Original Industries	New Industries	Total
<b>National Rank for Total On- and Off-site Releases*</b>			
Rank	3	6	4
Pounds	144,334,358	191,933,918	336,268,276
<b>National Rank for Total On-site Releases**</b>			
Rank	3	6	6
Pounds	108,556,396	178,483,569	287,039,965
<b>National Rank for Total Releases within State***</b>			
Rank	3	6	4
Pounds	146,223,967	192,607,698	338,831,665
<b>National Rank for Production-related Waste Managed</b>			
Rank	6	4	6
Pounds	927,584,610	370,952,324	1,298,536,934

\* Includes transfers out-of-state for disposal. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.

\*\* Includes amounts released at the facility. Excludes amounts transferred to other sites.

\*\*\* Excludes transfers for disposal sent out-of-state or sent to other TRI facilities within the state reporting that amount released on-site.



# 1998 Toxics Release Inventory

# OHIO

## On-site and Off-site Releases for Top Ten Chemicals Ranked on Total Releases in the State (Original Industries)

CAS Number	Chemical	On-site Releases				Off-site Releases	Total Releases in the State**	Off-site Transfers to Disposal		
		Air Emissions Pounds	Surface Water Discharges Pounds	Underground Injection Pounds	On-site Releases to Land Pounds	Transfers Off-site to Disposal* Pounds		Transferred Into State Pounds	Transferred Within State Pounds	Transferred Out of State Pounds
—	Manganese compounds	518,270	767,757	250	17,417,595	6,387,260	25,091,132	5,566,142	5,553,432	945,379
7664-41-7	Ammonia	10,883,202	378,472	1,659,400	59,280	219,021	13,199,375	458,786	178,471	55,693
—	Zinc compounds	251,012	12,265	0	4,970,660	6,443,150	11,677,087	25,976,684	6,592,477	1,613,019
75-05-8	Acetonitrile	104,157	0	6,850,000	0	0	6,954,157	21,032	0	0
7440-47-3	Chromium	132,315	1,119	0	2,452	6,483,753	6,619,639	603,892	6,567,962	19,791
463-58-1	Carbonyl sulfide	4,809,127	0	0	0	0	4,809,127	0	0	0
—	Nitrate compounds	4,188	4,396,591	244,000	44	112,633	4,757,456	111,141	50,140	62,493
67-56-1	Methanol	4,301,242	62,203	27,000	0	6,513	4,396,958	65,566	6,432	81
1330-20-7	Xylene (mixed isomers)	4,215,881	2,517	0	7	9,064	4,227,469	11,703	2,946	6,118
—	Glycol ethers	3,995,702	10	0	650	82,267	4,078,629	21,499	77,324	4,943

\* Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

\*\* The chemical ranking is based on the amounts in this column.

## On-site and Off-site Releases for Top Ten Chemicals Ranked on Total Releases in the State (Seven New Industries)

CAS Number	Chemical	On-site Releases				Off-site Releases	Total Releases in the State**	Off-site Transfers to Disposal		
		Air Emissions Pounds	Surface Water Discharges Pounds	Underground Injection Pounds	On-site Releases to Land Pounds	Transfers Off-site to Disposal* Pounds		Transferred Into State Pounds	Transferred Within State Pounds	Transferred Out of State Pounds
7647-01-0	Hydrochloric acid	68,615,417	1	0	0	0	68,615,418	0	0	0
7440-66-6	Zinc (fume or dust)	2,135	355	0	42,000,000	133,505	42,135,995	250	74,255	59,250
7664-93-9	Sulfuric acid	20,752,002	1	0	0	0	20,752,003	0	0	0
7664-39-3	Hydrogen fluoride	5,655,850	1	2,900,000	0	29,100	8,584,951	0	12,100	17,000
—	Barium compounds	25,703	84,041	0	5,824,058	1,829,236	7,763,038	84,675	1,792,527	68,068
7697-37-2	Nitric acid	116	0	5,300,000	0	31,000	5,331,116	28,557	0	31,000
—	Nitrate compounds	0	750	4,800,000	0	341,452	5,142,202	363	340,000	1,452
—	Nickel compounds	12,545	25,394	310,000	1,081,825	3,307,253	4,737,017	16,870	3,278,633	35,100
—	Zinc compounds	22,406	96,690	350,000	1,353,890	2,862,600	4,685,586	228,415	2,815,512	67,100
—	Chromium compounds	11,553	8,221	660,000	1,155,035	2,007,750	3,842,559	33,665	1,960,150	74,830

\* Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

\*\* The chemical ranking is based on the amounts in this column.



# 1998 Toxics Release Inventory

## OHIO

### On- and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (Original Industries)

Facility, City, County	On-site Releases						Total On-site Releases* Pounds	Off-site Releases (Transfers Off-site to Disposal)	
	Underground Injection				On-site Releases to Land			Transferred Within State Pounds	Transferred Out of State Pounds
	Air Emissions Pounds	Surface Water Discharges Pounds	Class I Wells Pounds	Class II-V Wells Pounds	RCRA Subtitle C Landfills Pounds	Other On-site Land Releases Pounds			
Elkem Metals Co., Marietta, Washington	3,954,177	773,000	0	0	0	9,864,000	14,591,177	0	76,000
BP Chemicals Inc., Lima, Allen	563,709	0	13,323,037	0	0	0	13,886,746	420	360
GM Powertrain Defiance, Defiance, Defiance	833,151	12,519	0	0	0	6,274,074	7,119,744	1,273	10
Millennium Inorganic Chemicals Inc. — Plant 2, Ashtabula, Ashtabula	3,611,132	140,000	0	0	0	3,300,000	7,051,132	0	0
Millennium Inorganic Chemicals Inc. — Plant 1, Ashtabula, Ashtabula	1,204,273	180,000	0	0	0	2,000,000	3,384,273	0	0
PCS Nitrogen of Ohio L.P., Lima, Allen	3,327,065	52,145	0	0	0	0	3,379,210	0	0
Armco Inc. Coshocton Ops., Coshocton, Coshocton	26,620	2,001,550	0	0	0	0	2,028,170	150,840	0
Owens Corning, Newark, Licking	1,780,818	0	0	0	0	79,925	1,860,743	33,818	0
Scotts Co., Marysville, Union	1,724,646	2,196	0	0	0	0	1,726,842	3,042	1,584
LTV Steel Co. Inc., Cleveland Works, Cleveland, Cuyahoga	50,561	1,880	0	0	1,358,140	0	1,410,581	467,233	11,204

\*The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.

### On- and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (Seven New Industries)

Facility, City, County	On-site Releases						Total On-site Releases* Pounds	Off-site Releases (Transfers Off-site to Disposal)	
	Underground Injection				On-site Releases to Land			Transferred Within State Pounds	Transferred Out of State Pounds
	Air Emissions Pounds	Surface Water Discharges Pounds	Class I Wells Pounds	Class II-V Wells Pounds	RCRA Subtitle C Landfills Pounds	Other On-site Land Releases Pounds			
Envirosafe Services of Ohio Inc., Oregon, Lucas	1,143	0	0	0	50,522,000	0	50,523,143	2,270	78,625
Waste Management of Ohio Inc., Vickery, Sandusky	7	0	17,841,000	0	0	0	17,841,007	0	69,264
Dayton Power & Light Co., J.M Stuart Station, Manchester, Adams	12,808,504	12,778	0	0	0	3,270,000	16,091,282	0	10
Cardinal Plant, Brilliant, Jefferson	11,323,277	158,690	0	0	0	1,696,280	13,178,247	222	7,365
Firstenergy, W.H. Sammis Plant, Stratton, Jefferson	12,115,408	11,273	0	0	0	2,146	12,128,827	2,134,500	0
American Electric Power Co., Muskingum River Plant, Beverly, Washington	7,930,873	23,399	0	0	0	951,020	8,905,292	1	4,038
Ohio Valley Electric Corp., Kyger Creek Station, Gallipolis, Gallia	7,707,645	15,331	0	0	0	1,008,100	8,731,076	10	0
American Electric Power Conesville Plant, Conesville, Coshocton	6,132,623	3,950	0	0	0	1,074,755	7,211,328	9,683	70
Firstenergy Corp., Eastlake Plant, Willoughby, Lake	6,346,570	3,787	0	0	0	0	6,350,357	617,000	0
CG&E Beckjord Generating Station, New Richmond, Clermont	5,416,190	9,897	0	0	0	399,045	5,825,132	252,800	28,560

\*The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.



# 1998 Toxics Release Inventory

## OHIO

### Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (Original Industries)

Facility, City, County	Recycled On-site Pounds	Recycled Off-site Pounds	Energy Recovery On-site Pounds	Energy Recovery Off-site Pounds	Treated On-site Pounds	Treated Off-site Pounds	Quantity Released On- and Off-site* Pounds	Total Production- related Waste Managed Pounds	Total Non- Production- related Waste Managed Pounds
Elkem Metals Co., Marietta, Washington	21,000	35,000	0	0	17,000	0	14,666,777	14,739,777	0
BP Chemicals Inc., Lima, Allen	3,744,000	0	7,254,400	0	3,746,000	20,634	13,880,683	28,645,717	520
GM Powertrain Defiance, Defiance, Defiance	0	0	0	0	170,000	6,737	7,234,700	7,411,437	0
Millennium Inorganic Chemicals Inc. — Plant 2, Ashtabula, Ashtabula	0	0	0	0	3,401,221	0	7,011,132	10,412,353	0
American Steel Foundries, Alliance Plant, Alliance, Stark	58,000,000	0	0	0	0	81,000	5,815,121	63,896,121	0
Wheeling-Pittsburgh Steel Corp. Mingo Junction, Mingo Junction, Jefferson	0	0	0	0	0	0	4,189,210	4,189,210	0
Timken Co. — Faircrest Steel Plant, Canton, Stark	229,950	198,400	0	0	0	0	4,080,000	4,508,350	0
Millennium Inorganic Chemicals Inc. — Plant 1, Ashtabula, Ashtabula	0	0	0	0	4,700,097	0	3,404,295	8,104,392	0
PCS Nitrogen of Ohio L.P., Lima, Allen	3,040,000	0	0	0	3,072,000	0	3,378,600	9,490,600	3,100
CSC Ltd., Warren, Trumbull	0	0	0	0	0	0	3,043,200	3,043,200	0

\*The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases.

### Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (Seven New Industries)

Facility, City, County	Recycled On-site Pounds	Recycled Off-site Pounds	Energy Recovery On-site Pounds	Energy Recovery Off-site Pounds	Treated On-site Pounds	Treated Off-site Pounds	Quantity Released On- and Off-site* Pounds	Total Production- related Waste Managed Pounds	Total Non- Production- related Waste Managed Pounds
Envirosafe Services of Ohio Inc., Oregon, Lucas	0	0	0	0	0	0	50,522,000	50,522,000	0
Waste Management of Ohio Inc., Vickery, Sandusky	0	0	0	0	0	2,847	17,841,000	17,843,847	0
Dayton Power & Light Co., J.M Stuart Station, Manchester, Adams	0	0	0	0	8,536,000	0	16,082,000	24,618,000	0
Firstenergy, W.H. Sammis Plant, Stratton, Jefferson	0	0	0	0	0	0	14,742,700	14,742,700	15
Cardinal Plant, Brilliant, Jefferson	0	108,300	0	0	2,000,000	0	13,193,000	15,301,300	0
American Electric Power Co., Muskingum River Plant, Beverly, Washington	0	98,700	0	0	1,300,000	0	8,908,000	10,306,700	0
Ohio Valley Electric Corp., Kyger Creek Station, Gallipolis, Gallia	0	0	0	0	1,800,000	0	8,738,000	10,538,000	0
Envirte of Ohio Inc., Canton, Stark	0	270,736	0	0	1,500,000	0	8,160,100	9,930,836	0
American Electric Power Conesville Plant, Conesville, Coshocton	0	45,700	0	0	7,270,000	0	7,214,500	14,530,200	0
Firstenergy Corp., Eastlake Plant, Willoughby, Lake	0	0	0	0	0	0	6,966,000	6,966,000	12

\*The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases.